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SCIENCE—TRUTH OR PROPAGANDA

By Dr. OTIS W. CALDWELL

DIRECTOR, INSTITUTE OF SCHOOL EXPERIMENTATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

AT a meeting of an advertisers' association, a commercial propagandist gave an address on the topic, "Creative Waste, the Thing Needed to Return Prosperity." He urged a campaign against people's habits of repairing used articles. Shoes and stockings should be thrown away, not mended. An out-of-date radio should be discarded and a better one purchased. Books should not be rebound or resold, but new ones bought. The family automobile, still good for service but noisy, should be demolished, and its place taken by a newer design with free-wheeling. The speaker urged that propaganda be distributed against the frugal habit of saving and repairing articles of proved service in order that respectability should be associated with the constant purchase of new goods. It was claimed that vigorous nation-wide propaganda regarding such standards of respectability would increase the purchases of new goods, would provide employment for those now idle, would keep wages high, and would provide surplus funds for entertainment during the leisure made available through the 40-hour working-week. The speaker did not explain the source of the funds with which to make the new purchases to supplant the articles to be destroyed.

It is the business of new truth to find its way into improved machines and materials and into improved human practices. The 79 major inventions of the world made since Watt's steam engine appeared in 1775 are some of the material exponents of the changes produced by scientific truth. Society has been reformed during the period since 1775 because, through useful propaganda, society has been led to change its former self in terms of new truth. Truth and helpful propaganda are not antagonistic to one another. Indeed, organized agencies for proper distribution of knowledge are indispensable. Education is one of those organized agencies. Doubtless the "obligation to distribute knowledge" is equal in importance to the obligation to search for new truth. There can be no reasonable controversy against the research man's hunt for new knowledge, nor against the publicist's eloquence about the constantly new world made available by new truth. We are now in great need of the right sort of a campaign not so much to teach the industrial uses of new truth, but rather the social services requisite for a society which has been so changed by scientific knowledge.

Those in charge of education are supposed to possess advanced attainments and tested experience which make it possible for them to guide others. It is the busi-

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ness of science teachers, and others, to propagate truthful ideas and helpful habits, and to restrict or inhibit harmful or useless ideas and habits. The extension of useful truth and of tested habits is one of the chief objects of good educational propaganda. Education is man's outstanding creation by means of which to improve himself. By constantly setting forward his ideals, testing them experimentally, then when proved, educating the masses toward these ideals, the race can continue to educate itself.

It thus appears clear that if the purposes of education are taken seriously, we may contribute to those purposes best by increasing the use of scientifically determined procedures in education. There are persons who do not agree to this statement. The relative places of the philosophic and scientific points of view of education are still in controversy. Of course we need a philosophy of education, but we think it must be a philosophy made increasingly definite by the results of scientific study. We still have too many so-called leaders who advocate a larger place for philosophy in the sense that they wish to theorize about education, untrammeled by exact truth as discovered by science. Flitting about on the wings of philosophy does not prove helpful to a teacher who must guide the plodding steps of pupils who need to go steadily in the direction which established facts have proved desirable. Do you recall the reply so often made when some propagandic philosopher is saving mankind by his well-spun schemes, and when some experienced teacher of children asks how the scheme would work in doing this or that in the commonplace tasks of the school-day's work? The philosopher replies, "Those are mere details to be worked out by those of you who sense my philosophy and go out to use it in your work." He may be quite sincere in believing he has answered the question, though his nebulous vocabulary often serves only to confuse the inquiring teacher. He "integrates his personality," as some one has said, and thus obscures whatever central truth there is about which the integration is supposed to occur.

In a recent book review, America's leading educational reviewer says:

> Philosophy settles in two hours the most important question and publishes the result to the world. Philosophy hurries to its sure conclusions. Science procrastinates its decisions. . . . Philosophy is the best method for the expeditious selection of makeshifts. It is the great narcotic, the soothing syrup for author and readers, even when a gadfly is most needed. Problems demanding immediate answers before adequate investigation can be made will always be with us. We shall always need philosophy. . . .
>
> Education must have the scientist if only to save its practitioners from the defenseless attitude of the advocate who can establish nothing, prove nothing, defend nothing, except by appeal to some authority, eminent only in vigor of expressing opinion. We must have the results of experiment and research if only to know whether adopted objectives are possible of attainment.[1]

The preceding general statements about truth and propaganda seem clear and are likely to have fairly wide approval. But if we become more specific, difficulties are encountered. The easy way always is to avoid being specific. However, it is specific cases with which individuals deal. Principles do not operate except through specific situations. Indeed, we often do not truly sense a principle except when it is seen in specific situations.

Pertinent illustration recurs often during legislative sessions, when well-meaning but misguided people launch their propagandic attacks against the use of animals in medical schools and other worthy laboratories. False pictures of animal suffering and unsupported claims of torture are sent out in this campaign. Even a cursory study of what the human race has gained quite offsets the meager arguments of those

[1] SCHOOL AND SOCIETY, 1932.

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who spread the propaganda. They overlook certain notable facts; that such animals are usually the hungry surplus of nature's everlasting overproduction; that the animals do not suffer but are usually more comfortable than they would probably otherwise be, and when in use are made insensitive to pain; that the gains are immeasurably large in relieving human disease and suffering; that the same amount of solicitude and affection if bestowed normally upon human children would do great good instead of inhibiting human progress.

In our so-called courses of instruction in education it sometimes appears that we are trying to "sell our goods," to overcome "sales resistance," instead of trying to present truth so that the learner will incorporate it into his own thought, and thus make it a working possession of his own. During the past year, an experience drew the lines sharply between mere propaganda and truth-teaching. A student of science teaching, who has some years of teaching experience, asked advice. He reported that the class of which he was a member had been indoctrinated for a week in the particular points of view of the instructor. The second test of the course was then given. Preceding the test, the instructor said: "In checking the many points of this test, answer as we have taught you. If you do not agree with us you can add to your answers the letters B.I.d.n.t.s., meaning, 'But I do not think so.' However, you will be scored in terms of what we have told you." The student in question had received a low score on a preceding test. He decided, as he said, in subsequent tests to "play the game according to the rules." Later, at the close of the course, he reported that his final score was as high as was given in the class. It may be asked whether his score should have been recorded in diplomacy, and not in science teaching.

Some of our National Yearbooks should not pass unnoticed by those who believe in an objective guidance in education. In its earlier days the yearbook was intended to be a compendium of objective data and of sound experience in use of subjects of study in education. That intention may still exist. But the common procedure in preparing such yearbooks is well known. Many of us have served on such committees and have contributed our parts to the situation under discussion. Indeed, the chairman and possibly one or two others are often forced to put themselves into their reports far more than they intended or wished to do. The committee must have a report and the chairman is the responsible member. Such is the nature of committee work. No wonder that such reports can be predicted in their final nature when it is known who constitute the committee. But instead of my own comments let me quote again from the inimitable reviewer, a school superintendent, not a science teacher. He says:

> Is there any correlation between the truth and the self-assurance, vigor, and the beauty of the verbal bouquets with which ideas are voiced by the committee? The outcome of committee reports is an evidence that the atmosphere of desire to "sell" the propaganda has permeated the deliberations. The larger the committee and the nearer to reigning authority, the more does it tend to degenerate into a selling agency before it knows that what it has made is a good purchase. The committee report is a stabilizing agency, not a gadfly stinging contented school-folk to new efforts to improve and to discover new truth.
>
> Insomuch as progress does not come in this way but through rebellion, difference, and trying out new things alone, it is not hard to see how a grand, unanimous report, if, as common, it is a compromise made up of untested opinions, may serve to retard education in proportion to the number of school people that take it for a guide.

The American tendency in education to exploit one's own thinking rather than to seek objective truth by experimental methods is still too common. Experimental

methods are very slow and can not be otherwise, and educational leaders are in a hurry to lead. However, slow progress may be the most rapid, when we think of things that endure.

In the November *Harper's Magazine* there is an interesting educational article entitled, "Study Abroad." Its main thesis deals with how some of our American college and school men spend their time abroad, and what we do about it when they return. One quotation touches our present topic:

> Steadily the value of the academic degree declines, with the creation of regiments of Bachelors, Masters, and Doctors who have earned their honors by writing theses on topics such as "Administration Problems of the High School Cafeteria," and "An Analysis of Paring Knives in Terms of Time and Material Wastes in Paring Potatoes." At the door of . . . the teachers college, may be laid the blame for teachers of science who know no science, since they have spent their time supposedly learning the method of teaching it. In the name of service and of practical training and of good will toward men, a price has been set upon balderdash.[2]

All of us engaged in science education must feel embarrassment that in the name of science things have been done which make it possible for honest students of American tendencies to cite such occurrences as basis of their criticism. They have abundant evidence of this sort. Surely there is great need for belief in science for the sake of its real truth, not for its possibilities in indoctrination for personal purposes. Possibly our needs are for more real science by those studying the problems of science teaching. Would it not help if more of those who train science teachers would take their own master and doctorate training in science subjects instead of in education?

There is large educational demand for new scientific knowledge both in problems of subject matter and ways of doing things. But scientific experiments, slowly as they develop, may prove to be nonproductive, and the chief good that comes from some of them is in showing what should not be incorporated into school procedures. In this negative way those experiments may have high value. We surely do not expect all experiments to produce positive results. Some of these experiments, after years of careful trial, produce tested contributions of value, which may then find their way into the regular day's work. For example, it took four years for the research men and their cooperating high school teachers to produce experimentally tested results showing how science teachers may correct pupil attitudes regarding superstitions and other unfounded beliefs. Even so, the results of those four years deal with but a small number of superstitions and with but two subjects of study. It will take many years to extend such experiments into several subjects of study and to include the hundreds of unfounded ideas now common in people's beliefs. Such experimentally proved advances must find their way into printed materials for pupil use, and into the convictions and practices of teachers. They will find their way because of the established evidence presented, not because of fervid personal propaganda, by those who make the experiments. Educators who must hurry to reorganize things usually can not wait for the results of scientific studies.

It has been shown that many superstitions and other unfounded beliefs are perpetuated by propaganda, though not always intentionally. Maller and Lundeen (Sources of Superstitious Beliefs, 1932) in their investigations found that "friends" rank highest and "home" next to highest in fostering superstitions; also that observation, books, newspapers, school and church combined under the heading of

[2] "Study Abroad," by Olaf Axelgaard (Pseudonym), p. 700, *Harper's Magazine*, 1932.

"educational" rank highest as factors in correcting superstitions. That is, guided observation and good books and newspapers are highly important in correcting undesirable attitudes and in establishing those that are desirable. Since attitudes have so much to do in determining human behavior, it seems highly important to make direct effort to develop desirable attitudes. There are persons who argue that direct teaching can not produce attitudes, but that the desired attitudes will result as by-products from the teaching of facts and principles. This sounds a good deal like the footless claims made 30 years ago when the "Committee of Ten" told us that the exact science studies would make human beings scientific in their attitudes. It seems surprising that the 31st Yearbook of the National Society for the Study of Education, 1932, still claims that attitudes are by-products of science teaching. The following is quoted: "Attitudes are also necessarily concomitant with the understanding of ideas and the understanding of methods. In their origins, attitudes are based upon understanding (or lack of it), and they are the reaction of a personality to learning experiences. Desirable attitudes, that is, attitudes that are consistent with truth, are the ones that are formed as a result of satisfactory experiences in learning." This assuring statement is not accompanied by any evidence that its claims are proved. While the meaning of this statement is not entirely clear, I understand it to mean that attitudes consistent with truth will be absorbed or developed while facts and principles are being mastered.

Attitudes are now thought to be as specific as are other objectives, and like others they must be directly sought by specific efforts if they are to be developed. If teachers could be clear just which attitudes would be most useful in advancing human welfare, and could know just what teaching would produce those attitudes, we might incorporate this highly important element into the subjects of study we now have. It is only through such specific efforts that we can relieve people of harmful reactions and establish those that will be helpful. It is very much easier to teach facts and principles, which we all agree should be taught, than it is to teach helpful attitudes and to correct false attitudes.

Miss Florence Weller has done a piece of research, as yet not published, based upon experiments with 450 sixth grade pupils. She finds that specific instruction produces changed attitudes. Her experimental pupil-groups all show statistically significant results in gain of attitudes regarding the points used in the experiment. As illustration of her work she says: "We may teach the life history of a muskrat and its uses to man, but unless we teach that muskrats are not weather prophets and that it is a fallacy that they build their houses higher when there is to be a severe winter, children do not apply their knowledge." She further concludes that "science provides the means of developing desirable attitudes and skills in problem solving if attention is focused on this aim." No one has yet reported research to prove how long or in what ways the desirable changes in attitudes will persist. No reason is known to show that good attitudes will be any less persistent than undesirable attitudes.

Pure science also occasionally witnesses the spectacle of questionable propaganda by a scientific worker. The obligation to distribute tested knowledge is sometimes shifted to a personal campaign to convince the public of the magnitude of the particular worker's contribution. A fervid and contentious popular address, or perhaps the more quiet and more insidious correspondence campaign about a question which should really be determined by scientific evidence is in itself an evidence

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that we still have far to go before we can claim that we are a scientific people. Truly, the products of science, her inventions, improved health, advocacy of guidance by truth and her new reasons and foundations for moral living have far outrun human adjustments. Possibly our greatest need is not more universal assent to the findings of science but assimilation of science into our habits of action.

Our whole American educational program is an illustration of an essentially good use of propaganda. From a few selected pupils in school, we have grown until everybody's children can and do go to school. Nothing equalling it has occurred in the world in all human history. We have built and extended the whole plan. Can we learn the answer to specific problems within the plan rapidly enough to permit the plan to do what it was designed to do?

IMPRESSIONS OF THE NEW EDUCATION FELLOWSHIP CONFERENCE

By Dr. H. L. SCOTT

ROBERT COLLEGE, ISTANBUL

AN impressionistic picture of as vast and intricate a subject as a world educational conference is a hazardous undertaking. The field of vision of one individual is inevitably restricted and the personal angle at which one views the manifold activities of such a gathering is likely to produce unfortunate distortions. A picture that is distorted and false in its essentials is worse than no picture at all. Therefore it behooves one to exercise the utmost caution in drawing conclusions and making generalizations, and one can not help having many qualms over the possibility of glaring misinterpretations and the certainty of many sins of omission.

There is comfort, however, in the anticipation of sympathy and common sense in one's readers who no doubt realize the difficulty of the descriptive task and the intensely personal nature of one's reactions, and are ready to make allowances. They, perhaps, will find some things of interest in this account by one who was present as a mere listener, but who is a fairly well-seasoned "looker-on" at educational conferences and is neither an uncritical enthusiast nor a disillusioned unbeliever in the value of inspirational gatherings.

A word should be said first of all concerning the excellent organization of the conference. Mrs. Ensor and her aids provided a bewildering array of attractive features—courses, discussion groups, lectures and exhibits. There were ten study courses, ten "sections," or discussion groups, two or three first-rate lectures daily and exhibits from fifteen odd countries. The arrangements for housing the delegates, for transportation, for the holding of dozens of meetings simultaneously were beyond praise. To know that there were 1,800 people from 52 different countries in attendance is to comprehend the magnitude of the task and the skilful staff work it required.

The city of Nice provided an ideal setting. The climate, the natural beauty, the refined amenities of the famous resort constituted a delightful background that gave one all the more zest for the serious preoccupations of the conference. The municipality placed its finest building, the Palais de la Mediterranée, perhaps the world's most sumptuous casino, at the disposal of the conference for the afternoon and evening meetings.

It may seem that Nice, the playground of the world's richest pleasure seekers, was an incongruous frame for the picture one's readers are asked to formulate of a group of earnest idealists bent on a better world. To be sure the conference and the general "décor" of the place provided amusing contrasts. For instance, upon emerging from the last meeting of the conference, which was pitched on a somewhat emotional note and was supposed to set us on

fire with a zeal for better things, we stepped into the midst of a bevy of charming participants in a beauty prize contest, who were in line preparatory to inspection by the delighted crowd outside the building. It was a striking contrast of tastes and aspirations which appealed mightily to one's sense of humor. But even Nice is not as frivolous as it was, nor is the pursuit of pleasure quite as intense or reckless. Casinos are closing for lack of custom. Perhaps the fact that this city, dedicated to pleasure, could extend such warm hospitality to so serious-minded a company is an earnest and token of better days to come when the indecent flauntings of the wealth that is unfairly concentrated in the hands of the privileged few will no longer be the fashion, and when such frothy pleasures as are characteristic of Nice and other like resorts will be looked upon as ridiculous and childish.

One can not, of course, take up in detail the work and discussions of the conference. There were, however, two general problems which seemed, to an observer at least, to underlie most of the thought and discussion: one was the responsibility of educators in the present crisis for building up a new world order; the other, the question of a working, creative philosophy of the New Education which will decisively determine the methods of teaching and learning.

The theme of the conference was, appropriately enough, "Education and Changing Society," and it is probably correct to say that all its thought and work were permeated by a conviction of the "invincible certitude," as Mrs. Ensor called it, that only education can bring about conceptions and practices that are saner, wiser and more constructive. Uppermost in every one's mind was the realization that education was to a very large extent responsible for the inept organization of man's economic activities and there was a positive craving to know how education may avoid the mistakes of the past and help build up future generations who will know how to provide for a juster and more effective production and distribution of the world's goods.

The following quotations from speeches are fair specimens of the sentiments expressed and indicate the extent to which the group was preoccupied by the thought of the condition of the world and the responsibility and duty of educators in the present crisis. Dr. Van der Leeuw, of Holland, who made perhaps the most impressively thoughtful and brilliant address of the entire conference, spoke as follows: "The imminent danger of catastrophe is recognized by many, but all seem paralyzed and helpless. Will the crew and passengers argue while the ship drifts to destruction? Those who are in a position to act do not know; those who know can not act."

Dr. Harold Rugg, of Columbia University, spoke in like vein: "This impasse has revealed the inability of our economic and political administrators to devise a humane division of the social income, an equitable system of owning property and a scientific plan for the production of things."

As to the responsibility and duty of educators in the present crisis Professor Piaget, of Geneva, spoke as follows: "To consider the unbelievable inactivity of the most intelligent of our rulers, one can ask if man is capable of living internationally and if the necessary adaptation can ever be made. Return to barbarism or the psychological transformation of man, such is the dilemma. It is therefore a problem of education." Dr. Rugg insisted that "the current chaos throws out boldly the opportunity and obligation of educators. Education is the only agency that is equipped to cope with the overwhelming problems of social reconstruction."

Granted the critical state of the world, what then is to be done? The answer given by the conference to this momentous question was that the program of action of the "New Education" should stipulate that education should deliberately attempt to reconstruct society. This prodigious task can be accomplished only through the medium of an entirely new content for courses of study in all schools based on and related to the real problems of contemporary life. H. G. Wells has said, in his "Work, Wealth and Happiness of Mankind," that the ideology of the schools does not correspond with realities; that "people leave schools and for the first time learn of the leading ideas which are essential to a modern idealogy. They learn for the first time of socialism and of communism, of monetary and financial questions, of tariff

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issues and of all the vast tangle of property and business. They have had hardly an inkling of these things at school. Schools put children back among old ideas." There is probably some exaggeration in this truly "Wellsian" and scathing attack. Undoubtedly there are many schools in which an honest attempt is made to give a true understanding of vital problems. Alas, it is only too accurate a representation of the situation as a whole.

Of the need of new materials of instruction—more dynamic, more truly enlightening—there seemed to be general agreement among the leaders of the conference. As to the method of making education a vital agency of social reconstruction there were obviously two schools of thought. One group, probably a minority, would have a definite program of definite action and organization formulated and taught in the schools. One suspects them of taking their cue from the Marxist doctrinaires and the great Russian experiment in social reconstruction. The other group would have nothing to do with a formalized creed of prescribed theories and dogmas but would have young people study the problems of contemporary life in such a way that right points of view and wholesome attitudes will be indirectly but effectively inculcated. The teacher's rôle should be to interest, inspire and guide rather than to serve as a propagandist for consciously formulated remedies which may or may not meet the needs of the society of tomorrow.

Although there was some difference of opinion as to method, agreement was fairly complete on the need of bringing the pupil in touch with reality, of a continuous attempt to understand and give understanding of current individual and group problems. The study of the problems of modern society should be absolutely honest, frank and searching. One has only to think of how utterly at sea every one is as to the causes of the present world "malaise" to realize how one-sided and inadequate our education has been. The duty of educators can be summed up in a series of rhetorical questions put by Dr. Rugg: "Can people be informed concerning the chief characteristics and problems of our new civilization? Can they be practiced in tolerance? Can they be made critical of the propaganda of dominant economic groups? Can they be taught to see the superficiality of quack remedies for fundamental social ills?"

It was emphasized that it is not only the rôle of the teacher of the social sciences to bring the world of reality into the schools. Every teacher—the teacher of mathematics, of languages, of the physical sciences—can, if he has the right amount of determination and imagination, relate his subject-matter to the vital problems of life. Of course much was made of the value of facing the pupils with real problems of cooperative living in the school, of using every school activity as a training in cooperative activity. Young people will not have the mental attitudes and habits of mind that will enable them to think through questions and deal with situations of citizenship unless they do much of such thinking, much of real problem-solving in the school.

Great emphasis was placed by all the chief speakers of the conference on the need of collective, world-minded attitudes and action. There was a really stirring challenge to all of us to work for a healthy appreciation of the interdependence of nations. The basic causes of the world's distress are to be found in the gross misconception of the nature of the economic laws that govern international trade and in the appalling mismanagement of all forms of intercourse between nations. I can do no better than to quote Dr. Van der Leeuw's striking words on the subject: "The technical world unity is no Utopian dream; it is a grim reality; for better or for worse we have made the world one organism . . . a very sensitive system, acquainting every part instantly with whatever is happening to any other part. . . . Though this technical world unity is a present reality, man, so far, ignores it in his social and political life. Here he continues to live as if nations were separate units, as if one could still profit at the cost of another. . . . Man has hitherto tried to live as the unicellular being, unto himself alone. Now he has to learn to live as a cell in a living organism. The task of education in this time is training in organic unity, the seeing of our modern world as an organism, living and real, the thinking in world terms."

Where does the nation as a unit enter into this philosophy of internationalism? Does nationalism have its legitimate and helpful

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aspects? Dr. Van der Leeuw speaks with equal force and eloquence on this subject: "This does not mean the end of nationalism but rather the beginning of a new nationalism. National genius and its variety are the very basis of organic world unity, the organism can only be through differentiation." Dr. C. H. Becker, late minister of education for Prussia, expressed much the same thought: "The richness of a society depends upon the multiplicity and variety of its intellects. Thus a future humanity will not arise from a one and universal education, but will be all the richer for being varied and many colored."

It is a comfort to those who believe in a sound, realistic internationalism as opposed to the sinewless, sentimental variety, to be assured by such authoritative thinkers that there is spiritual value for the world in a virile, robust national loyalty. A sane internationalism glories in national individualism—in a nation's uniqueness—as a contribution to a richer world civilization, without in the least disparaging the need of a consciousness of world unity and the growing interdependence of nations.

It will be said that these stirring speeches were all very fine, but is there to be any practical, constructive outcome from this flow of eloquence? It is reassuring to be told by Dr. Rugg in the September number of the *New Era* that "the conference provided the machinery for vigorously doing something about the contemporary situation." The international commission on the reconstruction of the curriculum has decided to prepare new materials of instruction and introduce these into the schools of their countries. "The curriculum commission is actually making outlines, syllabi and other teachers' guides dealing with international and domestic problems of the contemporary world; topics for student research: bibliographies in different languages, and the like. Totally new kinds of books are being prepared in several countries—libraries of true understanding of the new civilization. . . . This is truly revolutionary—and basic to social reconstruction."

A word should be said of the philosophies of the Newer Education propounded and propagated at the conference. It struck the writer of this article that one heard less of the hackneyed pabulum of such conferences—of the need of freedom for the growing child, of making spontaneity easy, of the principle of natural interests, et cetera. This does not mean that these ideas are obsolete, but that they are taken for granted, although the present tendency is to apply them with greater caution and with more safeguards than in that heyday of the sentimental educational radical when complete freedom for the child was to be the cure for all individual and social ills.

It was easy to discern in the lectures and discussions a greater emphasis on the principle of "wholeness." There was the idea, already mentioned, of wholeness as applied to the physical and spiritual unity of the world. There were other aspects of the same principle: the need of integrating the school curriculum, of seeing all subjects as a whole and in their natural relationships; the necessity of thinking in terms of a whole life to be educated, instead of confining the educative process to the conventional school age; the growingly insistent demand that the school extend its beneficent influence into the child's life out of school as well as in; the recognition that the education of the mind through books must be supplemented by that of the whole personality through wholesome activities; finally the fundamentally imperative desideratum of utilizing all the activities of the community in the business of training for life. Undoubtedly there was general agreement on these basic principles.

When it comes to the theories that actually determine the methods by which the generally accepted philosophy is to be applied, there was a very familiar cleavage of opinion. There were the practical-minded, somewhat conservative exponents of the necessity for carefully prepared curricula of conventional subjects and subject-matter and in the opposite camp the more radical enthusiasts who think of education in terms of life problems, in the study of which the right attitudes and appreciations will be developed and useful skills and knowledge acquired.

Despite this particular sharp difference in view-point and other differences which cropped up in the course of discussions, one could not help feeling that there was a real unity of spirit underlying the conference. This unifying "leit-

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motif" can be found in the appreciation of humanity's need of a new sense of values on which to establish the culture of the future and the immensity of the challenge to educators whose obvious duty it is to work out these values and make them live in the lives of the youth of the new generation.

Mention should be made in this article of the four commissions which functioned during the conference and which will continue their constructive labors until positive results are achieved. They are to work on (1) constructing new materials of instruction to be used in the schools of the world; (2) the reform of teacher training; (3) the attempt to base educational procedure on the "new" psychology; (4) examination reform. A commissions' secretary has been appointed, who will be attached to the New Education Fellowship Headquarters in London and who will correlate the work of the individual members and attend to the interim publication of results.

One great benefit of a conference of this sort is that one's preconceived notions are almost certain to be wholesomely modified to a greater or lesser extent. The writer of this article would like to bear testimony to one decided modification in his own opinion of the ideals and attitudes of French educators, several of whom he had the privilege of meeting and conversing with at length.

The easy and popular thing to say when Europe's troubles are under discussion is that France is a nation of "die-hards" and political "bitter-enders," who block every attempt at political and economic reconstruction. Many an American, Briton and German went to Nice this summer thoroughly imbued with this prevailing point of view, and it is to be feared that many returned home without this opinion having undergone the slightest modification. Many of the visiting members spoke and understood little or no French, and even fewer of the French representatives were familiar with English or German. This linguistic barrier obstructed the free exchange of educative ideas and information which should constitute one of the choicest outcomes of such a conference.

This was certainly a major tragedy. The crying need of the hour is that other peoples should understand France, who holds the key to most of the problems that vex Europe, and that the French in like manner should understand other nations. Happily, however, there were some who saw a new light as a result of their experiences and contacts at the conference.

Even a slight familiarity with the qualifications and opinions of M. Langevin, professor of the Collège de France, and president of the conference, would have suggested that there is a France quite unlike the France of the conventional post-war tradition. Professor Langevin is a member of the Commission of Intellectual Cooperation of the League of Nations, of the Ligue Internationale des Combattants de la Paix, of the Comité d'Education pacifiste de la Ligue d'Enseignement, and president of the Compagnons de l'Université Nouvelle, which is working for the establishment of the "ecole unique" in France. A better qualified president for a conference of progressively minded leaders from fifty-two different countries, all eager to promote international frendship, could not have been found.

The first day of the conference was one of happy augury. M. de Monzies, minister of public instruction of France, in welcoming the educationalists of many nations was especially cordial in his references to the German representatives. He publicly shook hands with Dr. Becker, ex-minister of education for Prussia, and declared that nothing must disturb the fellowship of hearts and minds that has been reestablished between the educators and scientific men of the two countries.

One heard, of course, cynical comments on this exchange of eloquent courtesies, and even those of us who were far from cynically inclined asked if these were not polite gestures of no significance. However, after further conversations with French delegates one came to realize that the teachers of France are as liberal and have as broad an outlook as any corps of teachers in the world. One came to know that eighty thousand French teachers belong to the National Syndicate of Teachers, affiliated with the C. G. T., or General Federation of Trade Unions; that this organization has to its credit more positive achievements in promoting the rapprochement of nations than any similar body in the world. For one thing it induced the

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educational authorities of the departments to ban a score or more of text-books whose pages breathe too bellicose a spirit. The syndicate, in its conference at Strasbourg in 1926, resolved that its members would avoid in their teaching any word which might injure sympathetic understanding of other peoples and the desire for peace. Moreover, it took the initiative in arranging conferences with the General Association of German Teachers which have resulted in an International Federation of Teachers Associations, with the twofold aim of pedagogic collaboration and the cooperation of teachers in the cause of peace. "Our teachers, at least most of them," said one of the French delegates, "believe thoroughly in moral disarmament and are promoting it with every means at their disposal."

These conversations made one "furiously to think," and to realize that perhaps there was hope for harmony in the European family, if there was really so large and influential a body in France militantly engaging the forces of obscurantism and bigotry in the spheres of national politics and international relations. The writer determined to learn more of the attitudes and ideas of the French teachers as far as he could through their representatives at the conference, and took advantage of every possible opportunity to listen to the discussions which took place in the various group meetings of the French section.

One was first of all impressed by the vivacity and sparkle of the talk and the very general participation in the discussions. There was scarcely a dull moment in the meetings. What a contrast to the unresponsive, heavy, phlegmatic Anglo-American audiences who seldom did anything but stolidly listen and ask occasional timid questions. Our discussion leaders had to work against the Anglo-Saxon self-consciousness which inhibits the public expression of interest and opinion, and makes a really exciting thrust and parry of ideas so difficult to bring about. The chairmen of the French groups had their troubles, to be sure, although of another order; their chief task was to control the obstreperous twenty or thirty who were all eager for the fray and all striving to talk at once.

Another impressive fact was that the French are thoroughgoing realists, even in their idealism. Their educational aspirations have nothing of the vaguely "pious" about them; they are directed towards concrete and carefully defined objectives that have substance enough to be eventually realizable—a contrast to the nebulosity of the idealistic yearnings of many educational radicals in various other countries.

The subjects of discussion formally announced in the French section struck one as not very significant—rather trivial and arid for a conference of this nature. There was one notable exception. M. René Laforge, psychoanalyst and author, gave a series of very stimulating talks on the development of abnormal tendencies in children. On the whole, however, there was much more of interest in the discussions which had wandered off onto side tracks, quite remote from the subjects introduced by the leader or lecturer.

A great deal was said in the way of protest against the excessive regimentation of courses of study, of the subject-matter and of method by the higher educational authorities. Many a plea was made for greater freedom for individual directors of schools and of teachers in the choice of materials and method, although it was gratefully recognized that conditions in this particular were a vast improvement over those of only a few years ago.

Equality of opportunity for all children of all social classes was the theme of several eloquent harangues. Reference was often made to the "ecole unique" or "common school," which would do away with the social discrimination inherent in the present organization by providing a common primary school for all. One was surprised to learn of the great progress made toward the realization of this ideal, the more so as one came to realize also how thorny a political question it is and how resolute and aggressive is the opposition to the plan.

The speakers reverted often to the need of considering the child as an independent being, and to be studied as such, in order to offset the traditional tendency in France to train a child to be a mere unit of the family, school or national group, in which he must submerge his individuality. The need of really educating the child, not merely instructing him, and the necessity of cooperation between the school and the home in order to achieve this end, were fre-

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quently emphasized. The value of greater individual and collective activity of a practical nature for children in the school in promoting a more adequate training for real life was obviously uppermost in the minds of many and found expression on many occasions.

Of course one can not do full justice to the deliberations of the French delegates. Undoubtedly there were many more subjects upon which much was said. These few and brief glimpses of liberal educational thought in France were sufficient, however, to warrant the conclusion that there is a strong progressive movement which is making and will continue to make itself felt with considerable effect upon education and upon the national and foreign policies of the country.

As a conclusion to the attempt to clarify one's impressions of the conference for the benefit of those who did not attend, one would like to stress the worth-whileness of the enterprise. It is easy to lapse into a state of chronic criticism and complaint during a conference of this sort. So vast an undertaking, with a feverishly improvised organization, depending to a large extent on purely voluntary workers, can not be faultless in its working. Strains and stresses, deficiencies and a general patchiness inevitably reveal themselves, despite the heroic efforts of the organizers. One must exercise forbearance and act the good sport when the intellectual giant whom you have so looked forward to hearing and seeing fails to appear at all, or when the study course for which you have paid fifty good francs, and which seemed so attractive in anticipation, is ineptly conducted. To become preoccupied with the inevitable disappointments is fatal. To take them lightly is to make it possible to see that for every disappointment there is a delightful and compensating surprise.

The blessings far outweighed the shortcomings at Nice. One will never cease to be thankful for the opportunity to meet so many people of unique intelligence, charm and friendliness. The personal contacts were perhaps the best and the most stimulating of one's experiences. Then there was the quickening of the sense of belonging to a powerful fellowship of hearts and minds, with a common, vitalizing purpose despite honest differences of opinion on minor questions. It can be said in all candor that one actually came to feel that perhaps in the New Education Fellowship there was the beginning of a great movement—a movement of reform and new life that will prove to be the decisive factor in opening up a new and happier epoch in the education of the world. All honor to Mrs. Ensor and others of equal vision and courage and tireless enthusiasm!

EDUCATIONAL EVENTS

DECREASE IN THE PER CAPITA COST OF EDUCATION

ESTIMATES received by the U. S. Office of Education based on data supplied for a special 1932–33 study indicate that the cost of education per child per day in school has been cut 14 cents since 1929–30. This means a decrease in *per capita* cost of 22 per cent. in three years.

In 1930 the average cost per child per day in the public elementary and high schools was 62.8 cents. In 1933 it is estimated the figure will be 48.7 cents. Statisticians in the Office of Education have reason to believe that when final data are in, the resultant average may be even less than 48.7 cents.

Of the 62.8 cents spent daily in 1930 on each child, 12.6 cents went into new buildings and equipment and other improvements. Only 50.2 cents went into current expense, that is, teachers' salaries, books, coal, repairs, etc.

Of the 48.7 cents being spent each day this year, 4 cents go into buildings and improvements; 44.7 cents into salaries, supplies and other current expense.

Comparison of data for other years shows that the decrease in 1933 is carrying *per capita* costs for public education to a level lower than any year since 1922. The average daily cost of educating a child in 1922 was 51.1 cents; in 1920 it was 38.9 cents per child.

The comparative figures do not disclose the full extent of the reduction in cost of public education. The figures do not take into consideration the increased proportion of high-school pupils in the public-school population. Since high-school pupils cost about twice as much to edu-

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cate as elementary school children, any change in the proportion has a profound effect on the expense of the school's undertaking.

In 1920, when the average *per capita* cost of public education was 38.9 cents, only 10 per cent. of the school enrolments were high-school pupils. In 1930 this proportion had risen to 17 per cent.; and it is undoubtedly higher now —perhaps twice as high as it was in 1920.

This means that while the *per capita* cost for 1933 (48.7 cents) is 10 cents more than for 1920 (38.9 cents) part of this increase is due to the greater percentage of high school pupils in the schools.

THE UNIT-COST PLAN AT ROLLINS COLLEGE

BEGINNING with the academic year 1933–34, Rollins College will adopt a program said to be new in college finance. The plan has been advocated in principle by officers of the General Education Board and other educational experts, Rollins College being the first to put it into practice.

The plan in brief as adopted by the executive committee of the Board of Trustees, January 5, 1933, is as follows:

(a) It budgets the college on an adequate but not an extravagant financial basis.

(b) It divides the annual operating expenses by the estimated student enrolment, not to exceed five hundred.

(c) It then fixes the cost of board, room and tuition of the individual student as one unit-cost of the total, which it is calculated will be $1,350 for the next year, an increase of over $400 in excess of the present charge.

(d) It makes available the income of the present endowment—approximately $60,000 a year—plus any gifts which may be received for loans or scholarships, for reducing tuition to those worthy and desirable students who can affirmatively prove they can not pay the full rates.

This Unit-Cost Plan will apply to all students except:

(1) Those whose parents are bona fide residents of the college community. Such students who maintain approved standards will be granted a limited number of partial scholarships in recognition of the friendship and support of this community which serves us and which we try to serve.

(2) Those of approved standing now at Rollins who can affirmatively show that they will have to leave college if they are required to meet the increase. It is proposed to allow these to continue at the rate they are paying this year.

THE DISCONTINUANCE OF THE UNDERGRADUATE SCHOOL OF NURSING AT THE NEW YORK POST-GRADUATE MEDICAL SCHOOL

AFTER almost fifty years of conducting an undergraduate school of nursing, the New York Post-Graduate Medical School and Hospital will retire from that field. It is announced that the future development of nursing education at the Post-Graduate Hospital would be similar to the post-graduate teaching of physicians which has been the special field of the school and hospital.

It has been decided that no class of undergraduate pupil nurses will be accepted after next month. The classes now training will be continued and the last nurses to receive their diplomas from the school under the undergraduate arrangement will be the class of 1935. By that time it will have graduated 1,438 nurses.

The plan for post-graduate nursing will be developed in conferences with Columbia University officials. It was said that the decision to give up undergraduate training follows recommendations in the recent report of the American Nursing Association, which stressed the fact that there was need of post-graduate education in that field. The committee on the grading of nursing schools reported that in 1900 there was one nurse to every 6,405 of the population and, in 1928, one nurse to every 590 of population, an increase of more than 1,000 per cent. In 1932 there were more than 2,000 training schools for nurses, with 90,000 students, graduating more than 22,000 nurses annually into an already over-crowded profession.

The present school at the Post-Graduate Hospital was organized in 1885 by Dr. Julia McNutt, its first director of nurses, and twelve nurses received diplomas in 1888. The school was the third of its kind to be established in New York. In 1895 its resident superintendent of nurses was Miss Annie W. Goodrich, now dean of the School of Nursing at Yale University.

The late Harris C. Fahnestock provided

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funds in 1900 to build a residence for the school, and since that time William Fahnestock, a director of the hospital, has provided generous gifts for additions to the residence and for equipment.

THE HARVARD GRADUATE SCHOOL OF EDUCATION

THE Harvard Graduate School of Education announces thirty-four courses which will be given during the second half of the current academic year. They will be open not only to students in the school but also to teachers in the public schools of greater Boston who desire to obtain the degree of master of education from Harvard University. For the convenience of teachers, several of the courses will be given from 4 to 6 in the afternoon. All the courses began in the week of February 6.

Assistant Professor L. Leland Dudley will give two courses, "Principles of Educational Administration" and "School Plants, School Finance and Business Administration," which deal with methods for maintaining efficiency in the face of curtailed school budgets and with other problems arising from the economic depression.

A new course, "Sense Aids in Education," makes available for the first time the results of the school's researches in the use of moving pictures in classroom instruction. This investigation was carried on under a grant from the Carnegie Foundation for the Advancement of Teaching. The course will be given by Dr. Philip J. Rulon in cooperation with Mr. J. A. Haeseler, of the University Film Foundation.

Another new course, by Professor Walter F. Dearborn, "Modern Clinical Methods in Educational Psychology," is designed to familiarize teachers with the Boston hospitals, clinics and schools which have to do with the behavior problems of children.

Other courses will present the latest teaching methods for specific subjects, such as English, French and mathematics, and also specialized branches of educational procedure.

The total number of these courses for the second half-year will be 34; last year it was 28. The courses were attended last year by about 215 teachers from greater Boston.

EMERGENCY RECREATION PROGRAM AT BOSTON

THE plans of the Boston Emergency Committee on Health and Recreation, of which Mayor James M. Curley is honorary president, have now been put into effect. The work will be carried on in thirteen of the municipal buildings. Mayor Curley in making the announcement said in part: "Pioneer work for the mental relief of the unemployed was undertaken last winter, in Boston, through a series of educational courses made possible by the cooperation of schools, colleges and universities. The success of the 1932 cooperative university courses attracted nation-wide attention to this type of work as well as creating a demand for their repetition here. This year Boston is going much further in this important service by providing, in addition to the free lecture courses at the Old South Meeting House, day and evening programs for physical and mental development in thirteen of the municipal buildings located strategically throughout the city."

The project, which has engaged the interest of leaders in music, arts and crafts, athletics, education and health who are volunteering both advisory and active services for the program, will continue through early spring.

In order effectively to undertake this work, committees have been organized under the following chairmen: Physical committee, William J. Bingham, director of physical education and athletics at Harvard University; music, Arthur Fiedler, of the Boston Symphony Orchestra; arts and crafts, George C. Greener, of the North Bennet Street Industrial School; reading and quiet game rooms, Milton E. Lord, director, Boston Public Library; medical, Dr. Charles F. Wilinsky, director of health units and education; A. F. Whittem, associate professor of romance languages at Harvard. The activities of the educational department began on January 23 with the opening of the cooperative university courses. More than 2,500 persons attended the nine classes which began the twelve-weeks' series of lectures this week.

Responsibility for administering and financing the undertaking is being assumed by the central committee, which is as follows: Honorary chairman, Mayor Curley; *chairman,* Commissioner Long; *vice-chairman,* William Phil-

lips, chairman of the governor's unemployment relief committee of 1932; *secretary*, W. Duncan Russell, general director of Community Service of Boston, Inc.; Patrick T. Campbell, superintendent of schools; John P. Englert, superintendent of public buildings; George P. Hamlin, Jr., member of the governor's unemployment relief committee of 1932; Louis Kirstein, president of the Associated Jewish Philanthropies; Joseph Lee, president, National Recreation Association; Milton E. Lord, director of the Boston Public Library; William Cardinal O'Connell; Rev. Thomas R. Reynolds, director of the Catholic Charitable Bureau; Maurice J. Tobin, Boston school committee, and Mrs. Eva Whiting White, president, Women's Educational and Industrial Union.

REDUCTION IN THE BUDGET OF THE NEW YORK CITY SCHOOLS

DETAILS of proposed cuts, amounting to $2,508,000, in the New York City school budget for 1933 have been made public by Dr. George J. Ryan, president of the Board of Education. Dr. Ryan emphasized the decision of the board not to close the evening schools and said that no cuts were planned in community or recreation centers. The saving that will be made in the evening school division will come as a result of holding four instead of five nightly sessions a week.

The largest item among the suggested cuts is an estimated saving of $776,000 by requiring teachers absent from duty to share in the cost of paying substitutes. An estimated saving of $362,000 in repairs, replacements and betterments; $350,000 on supplies and equipment, aided by lower prices; $215,000 as a result of closing the teacher-training colleges, $146,500 by filling vacancies with substitute teachers, instead of teachers on annual salaries, and $125,000 saved as a result of lower fuel costs.

The cuts have been proposed as those which, it is believed, will affect least the efficiency of the schools. The complete list follows:

Substitutes for absentees	$776,000
Vacant position of Assistant Director of Manual Training	5,000
Physicians on a fee or daily basis	6,500
Vacant position of inspector of ungraded classes	7,000
Promotions, junior high schools	25,440
Promotions, day elementary schools	62,568
Filling vacancies in day high schools (110) on a substitute basis instead of at annual rates	146,520
Day High Schools—25 positions of teacher in training for Fall of 1933	8,100
Teacher Training Colleges	214,912
Evening Elementary Schools	30,000
Evening High Schools	90,000
Evening Trade Schools	11,250
Office supplies and equipment	15,000
Carfares, traveling expenses, etc.	2,500
Parental and truant schools	3,500
Educational supplies and equipment	350,000
Continuation school supplies and equipment	12,000
Special and industrial supplies for physically and mentally handicapped children	3,400
Music supplies and equipment	100
Custodial service:	
New buildings	25,000
Use of buildings in connection with special activities	25,000
Fuel	125,000
Janitorial supplies and equipment	20,000
Repairs, replacements and betterments, Class I	362,500
Repairs, replacements and betterments, Class II	350,000
Heating repairs, replacements and betterments, Class II	35,000
Libraries and apparatus, regents' schools, etc.	15,200
Transportation of pupils	48,020
Health education supplies and equipment	20,000
Visual instruction	7,500
Cartage of school supplies	5,000
	$2,508,010

LOANS FOR THE SCHOOLS FROM THE RECONSTRUCTION FINANCE CORPORATION

BROADENING of the Reconstruction Finance Corporation powers to include loans to public-school districts organized pursuant to state laws to aid in financing operation and maintenance of public schools, including payment of salaries of teachers, officers and employees, was proposed before the House Committee on Banking and Currency at a hearing on February 3. The committee took no action.

As reported in the *United States Daily*, Representative Dieterich (Dem.), of Beardstown,

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Illinois, senator-elect from that state, headed a delegation sponsoring his bill to authorize the corporation to make loans for maintenance to public school districts.

Other witnesses were: Representative Ellzey (Dem.), of Wesson, Mississippi; Dr. William G. Carr, Washington, D. C., director of research, National Education Association; Miss Bess Goodykoontz, Assistant United States Commissioner of Education, and Miss Selma Borchardt, legislative secretary, American Federation of Teachers.

The bill would provide that if such loans are agreed to by the Reconstruction Finance Corporation they would be made through the corporation's purchase of warrants lawfully issued in anticipation of the collection of taxes levied prior to the issuance of the warrants, or through the corporation's purchase of securities lawfully issued by the public school districts.

The bill would authorize the corporation to bid for such securities and warrants and would run for ten years. The public school districts would be authorized to anticipate the full amount of the taxes lawfully levied and remaining uncollected, notwithstanding the provisions of any state law, and the corporation would be allowed to loan to such districts in amounts equal to the full amount of such uncollected taxes.

Mr. Dieterich asked committee action to enable the corporation to pass on such loans as quickly as possible and said the same conditions exist in other states as well as in Chicago and Illinois. He said there is a situation to-day that if not relieved will close the doors of many schools.

Representative Maas of Minnesota has introduced a bill for the purpose of placing private colleges, universities and institutions of higher learning upon an equal footing with state institutions before the Reconstruction Finance Corporation. The present law permits only state institutions to secure self-liquidating loans. The bill reads:

> To make loans to colleges, universities and institutions of higher learning with interest thereon at no more than 3 per centum per annum to aid in the financing of dormitories and other self-liquidating projects, to aid in the refunding of the funded debt upon dormitories and other self-liquidating projects, and to aid in the refunding of student loans advanced by colleges, universities and institutions of higher learning and properly indorsed by them.

MINNEAPOLIS AND ITS PUBLIC SCHOOLS

IN connection with the meeting of the Department of Superintendence of the National Education Association in Minneapolis during the week of February 26 *The Minnesota Journal of Education* gives some facts in regard to the schools of the city.

The first Minneapolis Board of Education held its initial meeting upon April 7, 1860, in the City of Saint Anthony, later called Minneapolis. From the pioneer beginnings in the city at the Falls of Saint Anthony has grown, over a period of seventy-two years, a public school system which cares for the educational needs of approximately 85,000 pupils.

Minneapolis has 112 public-school buildings, which include six senior high schools, two junior-senior high schools, twelve junior high schools, two vocational high schools, eighty-seven elementary schools and three special schools. The Board of Education has, through the Architectural Division of the Business Department, evolved a standard building plan for each type of school building. These plans incorporate features of especial convenience in carrying out the educational plan.

The curriculum of the elementary school is not a sharply differentiated series of subjects but an organization of units which erases the sharp boundary lines between subject-matter fields. There is no rigid adherence to a time allotment. Objectives are definitely set, and learning proceeds through meaningful activities and experiences. Standardized tests and other objective devices aid the teacher to gauge the progress of her class as well as to diagnose the needs of individuals. A marked feature of the elementary school instruction is the individualization which is secured through small-group instruction. Corrective work, especially in reading and arithmetic, is a part of each day's activity.

In the junior high school, the program of studies includes both constants and variables. Considerable elasticity is provided by varying the activities and materials to meet the needs of pupils of different ability and achievement

levels. Standardized tests acquaint teachers with the needs of individual pupils, as well as with those of groups of students. Ability grouping of some type is carried on in each junior high school, and various means have been devised for giving corrective and remedial instruction.

The senior high schools are cosmopolitan in type, all the pupils from one geographical district attending the same school. These schools provide a wide range of electives to meet the needs of pupils of varying interests and abilities. In order to allow as much flexibility as possible, there are no set courses of study, but each pupil is encouraged to select subjects which meet his individual needs.

EDUCATIONAL NOTES AND NEWS

DR. THEODORE H. JACK, vice-president of Emory University, has been elected president of Randolph-Macon Woman's College at Ashland, Virginia. He succeeds Dr. R. E. Blackwell, who has been connected with the college since 1876, as president since 1902.

PROFESSOR L. N. G. FILON, Goldsmid professor of applied mathematics and mechanics in University College, London, has been elected vice-chancellor of the university for the remainder of the year 1932–33, in the place of the late Dr. J. L. S. Hatton.

DR. WALTER L. HERVEY, chairman of the New York City Board of Examiners, having reached the age of seventy years, retired from the school system on February 1.

HARRY L. WAHLSTRAND, serving his third term in the Minnesota House of Representatives, is chairman of its education committee, of which he was a member in 1929 and vice-chairman in 1931. Mr. Wahlstrand won his reelection to the House in November by a majority of more than 1,700. He made no political addresses nor any partisan appeals. He carried his regular teaching program in the Willmar high school without absence from any period of school duties. Two former superintendents serve with him on the Education Committee, A. A. Zech, Wright County, and William F. Ost, Ottertail County, besides R. W. Hitchcock, once a high-school teacher.

DR. ALBERT EINSTEIN, who sails for Europe on March 15, will be the guest of honor at a dinner in New York, given by friends of the Hebrew University in Jerusalem. It is planned to present to Dr. Einstein at the dinner a fund for the Hebrew University and for other organizations in which he is interested.

DEAN CHARLES HOLMES PETTEE, of the University of New Hampshire, observed his eightieth birthday on February 2. Dr. Pettee has given fifty-seven years of service to the university as teacher and administrator. He has been on three occasions acting president.

PROFESSOR JOSEPH KENNEDY, dean emeritus of the School of Education, University of North Dakota, was honored by a luncheon during the recent meeting of the North Dakota Education Association with three hundred of his friends in attendance.

JUSTICE HARLAN I. STONE, of the Supreme Court, formerly dean of the Law School of Columbia University, has been elected a trustee of the Folger Shakespeare Memorial Library at Washington, D. C.

AT a meeting in Rio de Janeiro of the Pan American Institute of Geography and History, Dr. Wallace W. Atwood, president of Clark University, official delegate from the United States, was elected president for a three-year term.

KENNETH B. MURDOCK, professor of English, dean of the Faculty of Arts and Sciences and master of Leverett House at Harvard University, was the principal guest at the annual dinner of the Harvard Club of Washington, D. C., on February 9.

DR. NICHOLAS MURRAY BUTLER, president of Columbia University, and Professor Raymond Moley, of Barnard College, adviser on economies to President-elect Roosevelt, will be among the speakers at the twenty-sixth annual Columbia University Alumni Day luncheon on February 13.

DR. MAJOR EDWARD HOLMES, formerly head

of the department of ceramic engineering at the University of Missouri, has been named dean of the recently created State College of Ceramics at Alfred University.

DR. CHARLES WEISS, formerly associate professor of applied bacteriology and immunology at Washington University School of Medicine, has been appointed director of the Clinical and Research Laboratories of the Mount Zion Hospital, San Francisco, California. He has also been appointed associate professor of research medicine in the Hooper Foundation of the University of California.

DR. HANNAH M. EGAN has been appointed acting dean at the Bronx buildings of Hunter College, New York City, as the successor to the late Professor Marion Rhoads Elliott. Professor Anna G. Anthony, formerly of the education department, will be acting dean of the freshmen at the Thirty-second Street Branch.

A. J. BERGUM, of the Duluth Central High School faculty, has been made principal of Stowe School, the largest grade building in Duluth. Mr. Bergum succeeds J. B. Wiener, who is now general grade supervisor of the Duluth schools.

MISS BERTHA R. PALMER, retiring state superintendent of public instruction, North Dakota, has accepted a position with the Scientific Temperance Federation in Boston. Miss Palmer's work will be in the editorial offices of the federation, which publishes the *Scientific Temperance Journal.*

J. HERBERT KELLEY, for twelve years executive secretary of the Pennsylvania State Education Association and editor of *The Pennsylvania School Journal,* Harrisburg, has been reelected by unanimous vote of the executive council for a third term of six years.

DR. MERLE RANDALL, professor of chemistry at the University of California, has been awarded a medal of merit by Charles University of Prague, in recognition of his contributions in research and the training of young men for careers in chemistry.

DR. GLADYS A. REICHARD, of the department of anthropology at Barnard College, Columbia University, has been awarded the A. Cressy Morrison Prize by the New York Academy of Science for her monograph entitled "Melanesian Design: a Study of Style in Wood and Tortoise Shell Carving."

A PRESENTATION was made at Gresham College, London, on January 18 to Mr. Allen S. Walker, extension lecturer to the University of London (in the subjects of London history and architecture), in recognition of his twenty-five years of extension work. Major E. Foster Irvine, one of the honorary secretaries, was in the chair. The presentation took the form of a cheque for £76, which was subscribed by the students and was presented by Mrs. Symonds, a student who attended Mr. Walker's first lectures twenty-five years ago and is still attending them.

PROFESSOR YUKIO YASHIRO has been appointed lecturer on fine arts at Harvard University for the second half of the present academic year. Professor Yashiro is director of the Institute of Art Research in Tokyo and professor of the history of art at the Imperial Academy of Art. He will give lectures on historical and esthetic aspects of Far Eastern painting.

C. DOUGLASS BOOTH, lecturer for the Royal Institute of International Affairs of Great Britain, was in residence on the campus of the University of Denver during November and December. He gave a series of lectures on "A Survey of Europe To-day." He also lectured in other parts of Colorado under the auspices of the extension department.

DR. IRVING LANGMUIR, of the General Electric Company, lectured on his adsorption theory at the Charlottenburg Institute of Technology on January 27. He was introduced by Professor Walther Nernst, with whom he was formerly a student.

A BRONZE plaque in memory of the late Professor Alexis I. DuPont Coleman, who taught at the College of the City of New York from 1901 until his death in 1926, was unveiled at the main center of the college on February 5. Professor Lewis Freeman Mott, head of the English department, presided at memorial exercises prior to the unveiling. Speakers included Dr. John H. Finley, formerly president of the college, and George N. Shuster, author and managing editor of *The Commonweal.* The tablet was executed by Albert P. D'Andrea, of the art department of Townsend Harris Preparatory

School, and contains a profile of Dr. Coleman in low relief.

DR. WILLIAM H. P. CREIGHTON, professor of mechanical and sugar engineering and dean of the College of Technology at Tulane University from 1911 to 1919, died on January 24 at the age of seventy-four years. He had been a member of the faculty for forty years.

LINDA M. CLATWORTHY, head librarian at the University of Denver since 1921, died on January 16. She was a past-president of the Colorado Library Association and was the author of a test planned especially to discover the new students' ability to use the library. A correspondent writes: "Miss Clatworthy was one of the foremost women engaged in library work, and her decease is a great loss not only to the institution with which she was connected but to her colleagues in library work all over the United States."

MRS. JULIA G. BABCOCK, chairman of the County Libraries Section of the American Library Association and librarian of the Kern County Free Library, Bakersfield, California, died on January 21, after a long illness.

MR. J. L. S. HATTON, the first principal of East London College and vice-chancellor of the University of London, died in January at the age of sixty-seven years.

PROFESSOR JAMES T. SHOTWELL, American representative on the International Commission for Intellectual Cooperation, with headquarters in Geneva, and chairman of the American National Committee of the Commission, has appointed the following as members of the Radio Subcommittee: Dr. Levering Tyson, *chairman*, Professor Edwin M. Borchard, Mr. E. C. Carter, Professor Joseph P. Chamberlain, Professor Ben Cherrington, Mr. Evans Clark, Mrs. Dorothy Detzer, Dr. Stephen P. Duggan, Professor Guy Stanton Ford, Professor Philip C. Jessup, Mr. James G. McDonald, Mr. Raymond T. Rich, Professor James T. Shotwell, Mr. Gerard Swope, Mr. Norman Thomas, Professor Quincy Wright. One of the purposes of the National Advisory Council on Radio in Education is to stimulate qualified individuals to consider and make recommendations for the broadcasting of subjects of general public interest. From its inception the council has contemplated the appointment of a Committee on International Relations. Because this purpose is practically identical with the purposes of the Radio Committee announced above, at a recent meeting of its board of directors the council designated the same personnel as constituting its committee on international relations. Communications may be addressed to the chairman of the committee, at 60 East 42nd Street, New York, N. Y.

AT a recent meeting of the Executive Committee of the Board of Trustees of Oberlin College, it was decided, on recommendation of President Ernest H. Wilkins, to incur a deficit, probably of the order of $30,000 or $35,000 at the end of the present fiscal year, rather than to make a general reduction in salaries at the present time. It was decided, also, that a reduction in tuition—the exact amount still to be determined—should go into effect for the year 1933–34. Twenty scholarships of a new type are to be offered to freshmen of very high standing in their high schools who will enter college in the autumn of 1933. All twenty will receive scholarships covering tuition for the first two years; those who, on the basis of two-years work, prove to constitute the upper half of the group will receive scholarships for the junior year; and those who, on the basis of three-years work, prove to constitute the upper half of the original group, will receive scholarships for the senior year.

THE New York City Board of Education has approved a reduction of $2,638,010 in its 1933 budget. This is $130,000 more than the proposed cuts announced on January 17. A refund of salaries for time off for excusable illness will be allowed to teachers under a new rule which is expected to effect a saving of $800,000 to the city treasury, as compared to $776,000 which was to have been saved by the plan first proposed but which met with such opposition from the teachers in the low salaried positions that it was revised. Under this plan each teacher was to receive a refund equal to the amount of her salary for the period of absence, but out of this refund she was obliged to pay the substitute teacher's salary of $7.50 a day. Under the new rule the teacher suffers a reduction of salary for half of her period of absence, regardless of the $7.50 which it costs the city to pay her substitute. The new rule

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contained the stipulation that no reduction should amount to more than $10 a day. In presenting the notice of retrenchment to the Board of Estimate, the Board of Education "expects that the fiscal authorities of the city will take the necessary steps to make up the deficit in state school aid when and as such deficit occurs during the year 1933," according to a resolution of the board of superintendents.

The Boston Transcript reports that Harvard University authorities on January 19 indicated that no official cognizance will be taken of the suggestion by a member of the Cambridge school committee that faculty members at Harvard, Radcliffe, Massachusetts Institute of Technology and Boston University contribute 10 per cent. of their salaries to the city's welfare department. The committee meeting had been called for the purpose of acting on Mayor Russell's demand that all city employees make a voluntary 10 per cent. contribution from their salaries to the welfare fund, and after four hours of debate it was unanimously voted to request school teachers to make the contribution. The teachers had voted at a mass meeting a week ago to make only a 5 per cent. donation, for the first six months of the year, and as a result of the committee's vote it is expected that the mayor's plan will be adopted in all groups of city employees. He had threatened a permanent 10 per cent. pay cut in the event of its rejection.

A BILL has been introduced in the General Assembly of North Carolina by Senator H. L. Ingram, of Randolph County, abolishing the offices of all county superintendents of public instruction, county boards of education, rural supervisors and attendance officers in the 100 counties of the state and establishing 30 district superintendents, district boards of education and other officials.

THE Rhodes Trust has issued its statement about Rhodes Scholarships for 1931–32: During the year 71 Rhodes Scholars took up their scholarships for the first time. The number of scholars regularly in residence for either the whole or some part of the academic year 1931–32 was 196—namely, 103 from the British Empire, 89 from the United States of America, and four from Germany. There were also in residence for one or more terms 18 ex-scholars. The present scholars were distributed among the various subjects as follows: Literae Humaniores (including philosophy or kindred subjects pursued with a view to advanced degrees), 8; Mathematics, 7; Natural Science and Medicine, 42; Jurisprudence, 48; Modern History, 23; Theology, 1; English Literature, 21; Modern Languages, 7; Philosophy, Politics and Economics, 29; Economics (Diploma or B.Litt.), 8; Forestry, 2. In the course of the year 61 scholars either completed the term of the scholarship or went finally out of residence without completing it.

DISCUSSION

KNOWLEDGE

KNOWLEDGE is what man knows, or perhaps better, what it is possible for him to know. It consists of facts and relations between facts. It is usually gained by experience, in libraries and from teachers, in or out of schools. Bergson claims that man has some knowledge that is never learned, at least not during the life of an individual, but comes as an inheritance from the past. This he calls intuitive knowledge.

A scholar makes knowledge an end in itself. For such an enthusiast knowledge is a magical charm which enables him to free languishing fact-princesses shut up in the castle of that dreadful giant, Ignorance. He spends his life freeing facts or finding sanctuaries with his fellows for those which have already been brought to light. A real scholar has a joyous life as a teacher or discoverer. Libraries are full of his books, which digest, summarize and discuss knowledge. However, the scholar seldom invents anything or gives birth to new ideas. Professors of English and literature write interpretations of Milton and Shakespere, but they do not produce great new novels or plays. They can summarize and criticize all the literature of the past, but present-day literature comes largely from newspaper men. The great inventors of each generation are not in universities. They are practical laymen who make knowledge work for man. Burbank used all the accumulated knowledge he could. He was not a scholar, however, but an inventor. His mind dwelt continually on production—on the crea-

tion of new fruits and vegetables which were better fitted for man's needs. Edison used the knowledge in professors' books to enlighten the world. The Wright brothers in their bicycle shop produced the aëroplane which would fly, while the great scientist, Langley, with better opportunities, never got his flying machine to leave the ground. Scholars who devote their lives to discovery pursue knowledge for its own sake. Such men as Darwin, Einstein, Michelson and Millikan are scholars. They formulate evolution theories, discover relations between matter and energy, measure the speed of light, weigh stars and determine the structure of atoms. Pasteur, Edison, Lister and the Wright brothers are inventors. They make phonographs, electric lamps, find how to cure rabies and other diseases caused by bacteria, perfect aseptic surgery and practice until they can fly. Their minds are fixed always on how knowledge may be used to make nature better serve man. The world at large often misunderstands scholars and inventors. It expects those who know things to be able to do things, but men are seldom so. The scholar is often learned but incompetent; the inventor often learns only as much as he needs to know to do some particular thing.

At the present time all types of knowledge are undergoing searching examination in regard to their value to society and certain fields in which scholars in the past have taken pride are falling into more or less disrepute. Knowledge of various languages gives a man greater ability to write his own language easily and forcefully and enables him to get a better and more direct knowledge of the cultures of peoples in foreign lands. Language study is essential training for foreign trade. History and economics give a man perspective, inspiration, knowledge of traditions and ideals. They enable him to get along better as a member of society. Mathematics has both scholarly and practical aspects. It is the chief delight of many impractical theorists and the every-day tool of business men, engineers and manufacturers. Science has come into its own; this is the "Age of Science." It gives scholars unlimited ranges for discovery and speculation. It has made the modern world more honest, enlightened, comfortable and safe. Sociology and psychology are such new fields that they do not as yet rest on a large body of facts. The latter is rapidly becoming an established science, but the former remains speculative to a considerable degree. However, "the proper study of mankind is man," and sociologists must continue until their knowledge can serve man in the regulation of his everyday life. Sociology will some day furnish the basis for scientific living. A knowledge of religions is desirable, for it gives a man insight into the desires, ideals and prejudices of his fellows. Men have perhaps lived more for hope, faith and charity than for the material things of life.

If modern civilization is to continue as a social institution, there must be friendly understanding and cooperation between specialists in different fields of learning. Continual readjustments must take place between different fields of human endeavor. Knowledge is not fixed and rigid, but plastic and mobile. Scholars, though often quite impractical and contributing little of direct value to society, must continue to discover, summarize, rearrange and teach their facts and theories. In the past dogmatic religion has often feared knowledge and creed has often denied truth. Certain sects to-day deny the rotundity of the earth, the facts of organic evolution, the existence of bacteria and the rôle these organisms play in disease. Religion, like other branches of learning, must continually make adjustments to keep pace with newly discovered facts. Industry must support religion, knowledge and invention and do it in an enlightened way. A priest who is attached to a court or an industry must continually struggle to keep an open mind and not become a servant of his stomach. A man who is born to be a discoverer can not be made a slave who works always on something which may be of immediate cash value. Darwin, Einstein and Michelson are of as much value to society as Pasteur, Edison and the Wright brothers.

Knowledge, to-day more than ever in the past, is the key to success. It opens doors to social rewards—fame, wealth, power. It must of course be used with wisdom, tact and judgment. A learned man if tactless may excite nothing but envy and antipathy in his fellows. Experience and learning are not the same as common sense, which perhaps is what Bergson calls intuitive knowledge.

A. S. PEARSE
DUKE UNIVERSITY

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DO WE BLAME THE SCHOOLS?

"THE complaint has been voiced that the schools are not furnishing leadership in a time of economic distress . . ." This is the introduction of an article entitled "Do We Blame the Schools?" by Jacob Hodnefield in SCHOOL AND SOCIETY for December 31, 1932. The writer of the article accepts the criticism and shows that we are to expect little from the graduate students and teachers. He concludes: "Economic leadership must arise in the market place. It may be an individual, a group or a mass leadership. But it must emerge from, or close to, the economic laboratory—the world of affairs."

As a member of the teaching profession, I should like to present a different point of view.

Directly or indirectly, most of the sane and honest leadership in economic affairs is the product of our schools. The leaders may be five or even twenty-five years removed from their school contacts; they may have gained much of experience in the "market place"; yet the preparation for such leadership was secured largely from the schools.

Moreover, there is reason to believe that thinkers are no fewer among the body of teachers than among any other similar body. It must be admitted that real economic leaders have not appeared in these times from any source. Industrial and political leaders are either ignorant of a way out or too selfish to apply the remedy. Leaders are always a small number out of many. There are teachers who do not think, who exert no positive influence and who are wholly out of touch with living economic issues. But in his pessimism Elijah learned there were "seven thousand in Israel, all the knees which have not bowed unto Baal." There are members of the teaching profession who have seen the economic problems with their accompanying maladjustments. They have kept close to the practical. They have seen the application of the theoretical, its values and its defects. There is no proof that as capable leadership, and as honest, can not be found in schools as in business. The leaders in social and economic thought in the profession would not accept the implication that they are only dreamers and theorists unfit to cope with hard economic facts.

If leadership in the past, and up to now, has come from the "market place" may Heaven deliver us from its continuation! Man is largely selfish. The economic leader of the practical type will have a selfish interest to serve. He can not see clearly the welfare of eleven million unemployed. The educator, as completely as any individual, stands as a neutral observer and with his wisdom, much or little, brings unselfishness not matched by others equally capable. And there is much evidence to indicate that honesty is as important a qualification as ability!

It seems easy to understand why more teachers have not appeared as leaders. Although America is democratic, leadership usually comes from those in public life, seldom from the private citizen. Any plan proposed by a private citizen, not well known, would get little consideration. Ideas must grow; they must be added to, subtracted from, changed. This molding into a working principle is generally done in the official forums of legislatures or other public bodies. Again, there are many points of view among educators. One acceptable to many can only come from much giving and taking. Ideas do not spring full grown and ready for use from any single brain. And finally, it is admitted that teachers are idealistic. This weakens their leadership. Nevertheless, it indicates their dissatisfaction with anything short of the ideal as they conceive it. The practical application of their philosophy would usually win modification for the sake of expediency.

An attempt has been made to say, briefly, that the schools are furnishing capable leaders; that there are thousands of teachers with valuable ideas, who need an opportunity to be heard; that they represent the most thorough scholarship, generally, on all phases and implications of social and economic questions; and above all, that they are actuated by high ideals of public service.

The schools and the teaching profession have not failed. The public does not make use of the schools as it might. This is the schoolmen's day! They need to put aside their reticence and be heard.

S. H. MCGUIRE

NEW CONCORD, OHIO

SPECIAL CORRESPONDENCE

SCHOOL ATTENDANCE IN NEW YORK STATE

NEW YORK STATE is becoming a vast schoolhouse. Approximately three million people, or one in four of the total population in 1930, was attending school, according to a statistical report of the New York State Education Department. The schools attended by this vast army ran the gamut of sixteen different types of education, ranging from the humble day school to the lordly university, proud of its charter from the Regents of the University of the State of New York.

WHERE DO THEY GO

The public day school still claims the banner share of New York's school population, 2,141,479 boys and girls, or 72.5 per cent. of the total. Private schools not reporting to state authorities are second with an estimated number of 275,000. Day and evening classes for foreigners, evening vocational and other evening schools constitute the third largest group, 196,957 pupils. The universities, colleges and professional schools are next in rank with a combined student body of 121,014, and the lowly part-time school is not far behind them with 104,478 pupils. The remaining institutions, comprising special schools, normal schools, Indian schools, schools for the deaf, the Merchant Marine Academy and the prison schools, complete the list with an attendance ranging from over 9,000 in the normal schools to 155 in the Marine Academy. To teach this vast aggregation of students of all degree requires a teaching staff of 97,158, or about one teacher to every 30 pupils.

For purposes of classification we may divide the public schools into grade schools and high schools. Three children out of every four attending school are in the grades and here the registration has shown a steady increase during the past ten years. But it is the high school that is "pressed full and running over," with over 400,000 young people to accommodate, the number of boys slightly larger than that of girls. The freshmen naturally have the largest numbers, 116,149, or 44 per cent. of the total high-school attendance. The second year group have over 25 per cent., the third year 16 per cent. and the seniors or graduating class, 12 per cent. The remainder were special students. The factor of safety looms large for the students in the senior classes, as over 80 per cent. of them graduate; nearly one half the number went on to college.

The students' choice of subjects in high school is somewhat difficult to determine because many studies are prescribed. Bearing this in mind, English courses head the list with 448,182 students attending them. The importance of commercial work is indicated by the fact that these courses had over 350,000 in attendance. Mathematics and science, both prescribed courses, enrol over 200,000; history, French, civics and Latin, each over 100,000 and music slightly below that figure. In shop courses are enrolled over 22,000 and a slightly smaller number, mostly girls, are found in home economics courses. Finally, high-school courses in agriculture interested 2,282 pupils.

The liberal arts colleges, normal schools and professional schools have a combined student body of approximately 27,000. Nearly two thirds of this number, or over 16,000, are college students. About 8,000 students are found in the professional schools and the remainder in normal schools.

Considered from the standpoint of numbers graduating, the professional schools comprising theology, law, education, medicine, dentistry, veterinary surgery, pharmacy, engineering and technology were the most fortunate, as three out of four of their matriculates were graduated. The normal schools' proportion was two out of three and the liberal arts colleges brought up the rear with less than half of their entering classes emerging with diplomas.

The schools and colleges of the state combined are turning out each year over 75,000 graduates, which is one half per cent. of the population. The lion's share of this figure, 60 per cent. goes to the public schools, 10 per cent. to universities and colleges, 9 per cent. to academies and a slightly smaller proportion to the professional schools.

R. D. FLEMING

THE TUCKER SCHOOL OF EXPRESSION

WITHIN recent years a number of schools, sounding a new keynote, have arisen, notable

among them being the successful "Modern School" at Stelton, New Jersey. In this school, which carries the first eight grades, attention is centered upon self-expression in creative activities such as weaving, gardening, music, art and dramatics. This training, which seems ideally suited to the age of childhood, is somewhat offset, however, when the students enter high schools where conventional methods of teaching prevail.

Among the new schools none is more interesting or more worthy of attention than the Tucker School of Expression of Cleveland, Ohio, which is making a unique and valuable contribution to the cause of education. During its forty years of successful operation it has graduated students which are to be found in every state of the union and foreign countries. The school's remarkable founder, the late Anna Moneure P. Tucker, conceived the idea of founding a school which should become a permanent educational institution, convinced that much of education was based upon falsity, and that in this field lay almost undreamed-of possibilities for achievement, awaiting the person with the vision, ability and high aims to discover and make them a reality.

The courses of study in the Tucker School resemble those of Leland Powers, or any other expression school, their forty or so courses being grouped under various branches such as: Psycho-physical culture, voice culture, English, dramatic art and philosophy. The aims and methods, however, are unlike those of any other school in the world.

This school, for example, believes in the education of the dramatic instinct as fundamental in any educational scheme. Indeed, the Tucker School was among the first in America, if not the very first, to have the distinction of believing in the practical application of expression study as the sane, normal method of fitting one's self for life.

The desire to express is universal. We see this instinct in the little child, eager to walk, to talk, to handle everything, and later on to be the actor in all sorts of imaginary situations. This instinct will express itself somehow. Righly directed, it makes the great man or woman; wrongly directed, the criminal.

The basic aim of the Tucker School of Expression is character building—the bringing out of the best that lies within the student. No pupil in this school can earn a diploma merely because he has passed written examinations with high marks. He must, in addition to obtaining information, have learned to make practical use of his knowledge. He must have a good posture, a pleasant speaking voice, good health, poise, and give evidence of ability to think. In short, he must be able to pass the only real test yet devised—the test of life itself. Other schools, in their anxiety to train the student's intellect and prepare him for a vocation, may lose sight of the character objective, but in the Tucker School this aim is of paramount importance.

The end and aim of all the work of the school —which may be classed as expression—is to bring about the harmonious growth and development of the student, mentally, emotionally and physically, most schools laying greatest stress upon the education of the intellect.

But the mind of the Tucker student is not neglected. In fact, the school uses the best method yet devised for the training of the intellect—the Socratic method of question and answer. This method encourages discussion and teaches the student to separate truth from mere personal opinion, which is transitory and fleeting. Lectures are sparingly used, as it is believed they make the pupil a passive recipient of information rather than an actively thoughtful person. The classes are small, and each time the group meets, each person has the privilege of presenting his own work and has the benefit of the criticism of both classmates and teacher. Subjects taught in the school which particularly encourage discussion are: Ethics, literature, story-writing, dramatic interpretation and English.

The physical work is taken quite differently from that in other schools, where the students take exercises mainly for the purpose of training the mind to obey commands alertly and with scarcely a thought of the results they wish to produce. How usual a thing it is, when visiting a gymnasium, to see the students swinging their clubs, or using their wands, with either grim determination, or complete lassitude, their minds far away from what they are doing. Such

physical culture methods are unproductive of results. How many graduates of our schools and colleges have developed a beautiful body? How many can even stand or walk without throwing their organs out of position, or carrying one side of the body higher than the other?

In the Tucker School, students are taught, as they take their dancing, life studies, pantomime, marching or voice culture, to picture clearly what results they wish to produce. If a student is working for grace, he visualizes himself as graceful; if he is working for correct posture, he sees himself as correctly poised. Stress is placed, not alone, upon the physical acts, but on the corresponding mental picture which the pupil wishes to produce in his own body. The principle of the mind governing the body is behind all Tucker work and is the secret of all successful physical culture.

The education of the emotions seems to be something new in education. While this training is not overlooked by most schools, still, their efforts in this direction are not carried very far; yet culture of the emotions rounds out the personality, producing the sympathetic, understanding, balanced person. The greatest need in education to-day is for an education of the heart as well as the head. Such cultivation is produced in the Tucker School through the interpretation of story, song and dance, and the appreciation of all that is beautiful in art.

I am not condemning other educational institutions, their courses of study or their methods of training. Most assuredly there is a very great deal in education, to-day, which has proved its worth. But I do believe that the time is at hand when we should reevaluate our whole educational system, retaining whatever has proved of value, and revising or changing that which is unsatisfactory. No one school holds all the light, but as time goes on and I observe and study the methods used in our schools and colleges and the products of these schools, I am firmly convinced that the Tucker School is shedding new and valuable light on this vexing question.

Any school in which education is a living type of activity, with text-books regarded as of secondary importance, merits serious consideration. The world is seeking the type of training which teaches students to do as well as to know. The Tucker School offers this type of education.

MILDRED PARKER

CLEVELAND, OHIO

REPORTS

ADMISSION OF STUDENTS TO PRINCETON UNIVERSITY[1]

A MORE comprehensive plan of admission to Princeton University, involving a revision of the existing regulations to meet the advances made in secondary education in the last decade, has been under careful consideration and study by committees of the faculty. Endorsed by the faculty, the plan was adopted by the trustees at the January meeting. It involves not merely another method of rating the applicant's fitness for college work, but a fundamental change in the relation of school to college.

GUIDANCE, NOT ADMISSION

The novel feature of the new scheme is the abolition of the concept of admission as a goal or end in itself, and the adoption of a different interpretation of the customary unit. The new method is not designated as related solely to admission, but will more adequately enable Princeton to continue the individual's own educational program as it has already been partially developed in the school. The admissions problem has been looked at anew as a transfer from one educational institution to another.

Each applicant at the time he applies for admission files his freshman electives. He submits not only his credentials but his future plan of study. The committee on admissions has before it the course of study followed in the school and the intended college program. The examinations of the College Entrance Examination Board required of the candidate will be regarded as tests of his fitness to carry on his proposed plan of study in college, and as devices to locate him in courses of the proper level after admission. The committee, with the help of the

[1] Part of a statement prepared by the Committee on Admissions, Princeton University.

school, assumes the problem of guidance and placement.

UNITS

College entrance requirements are usually expressed in terms of units, each unit representing in general a year's study in school in a given subject. In recent years there has been a great outcry against the unit. Colleges have been asked to abolish the unit, but the real question is, "What should the correction be?" Princeton does not propose to disregard the unit, but has revised the notion of the unit by permitting its increase in maximum value without in any way altering its base value. The base of the new unit is exactly where it was before and rests on the definitions of requirements and the examinations of the College Entrance Examination Board. But expansion above this base point is permitted.

Princeton recognizes that the unit system gives a fair appraisal of the quantity of preparation of the average applicant for college, but that it does not express the quality of preparation. It is also felt that the unit system is sometimes positively detrimental to the student's program of secondary education, especially when it leads to departures from a coordinated program of study in order to obtain one or two additional units in subjects not closely related to the student's central core of interests and aptitudes.

A modification of the present unit system will be made by adding a quality distinction to the existing scale showing quantity of preparation, specifically by making a distinction between "honors" and "pass" work in schools. A pass unit is defined as that represented by a mark of 60 or higher in the examination of the College Entrance Examination Board set to cover any given field of study. Honors work, however, is not to be defined by examination but by an agreement between Princeton and the school in the case of each particular applicant. An honors award will be made if the school principal or head master makes a specific recommendation for advanced standing in a particular subject of study. The value of the recommendation will be judged subsequently by the actual attainment of the student in college. The recommendation for advanced standing carries the implication that the freshman course which is now normally offered to students with this quantity of preparation would not be taken, but that the student would be enrolled in a sophomore course or in a high standing section in an advanced freshman course.

The honors award is in the nature of an agreement between the school and college in accordance with which the school carries the preparation of a student in a particular subject beyond the levels ordinarily required for college admission and the college agrees to place the student in an advanced course in that subject so that his developing interests will suffer no interruption. The student may do work of honors level either in specially organized classes or independently under the supervision of a teacher.

The existing unit gives a fair appraisal of the amount of preparation of the average applicant for college if the quality of preparation is checked by the examinations of the College Entrance Examination Board. For the assistance of school principals and head masters in arranging programs of study leading to the honors award in any subject the extension of existing unit values is proposed not as a medium of exchange but as a device for estimating the total program. Since the recommendation for an honors award is in effect a recommendation for omitting the usual freshman course, the honors value may be estimated as one unit above the existing value, the college unit being one course for a year.

The honors award would permit the extension of the conventional unit values by one point in English, mathematics and the foreign languages. Honors will not be awarded in single unit or one-year subjects. Honors in science will be awarded if the student has studied both physics and chemistry, has developed his knowledge of one of these sciences beyond the usual college entrance requirement, and has also carried mathematics to honors levels. Superior achievement in mathematics and science may be given an honors value of eight units. Honors will not be awarded in history unless the applicant has followed a continuous and well-integrated curriculum in history and social studies, the basic unit value or honors value to be determined from the nature of the course.

The foregoing scale of honors values is representative, in general, of the scale of values which the school and applicant may expect in planning the course of study in the school, but it is not intended to represent a rigid, inflexible point system, and is subject to individual agreements with the school principal or head master. The extension of unit values for work of honors level is permitted in order to provide more freedom in developing individual programs of study. The election of a continuing course in college is a condition of the honors award. Princeton does not regard this honors plan as a plan of admission but as a plan for placement in college in such a way that the student's developing interest will suffer no interruption and will receive further stimulation in the broader contacts of college life.

Investigation of many schools has shown that much work is being conducted in the schools which is over and above the normal college entrance requirements. At the present time students may receive credit for advanced work in the modern languages only, through the Cp. 4 examination. The honors award will enable Princeton to recognize advanced work in the schools, and will permit students to receive actual "credit" for this work if they need it for admission. In Europe the exceptional individual is granted exceptional opportunities. In America education is on a much broader base and provides far wider opportunities for larger numbers of students. Public education having been established on a broad base, the exceptional student has not been granted the opportunities which he deserves. The development of honors programs in the schools and the recognition of honors work by advanced placement in college will aid Princeton further in bringing into our system the desirable features of European practice without restricting the democratic scope of education which has become our national ideal.

NEW REQUIREMENTS FOR ADMISSION AT THE UNIVERSITY OF ILLINOIS

BY action of the Board of Trustees at its December meeting, new entrance requirements are in immediate effect at the University of Illinois. Recognizing, however, that there are applicants so far advanced in their preparation that it is impracticable for them to comply in all respects with the new requirements, the university will continue to permit students to enter until September, 1935, under its former requirements. The new requirements are the result of two years of study by the University Senate Committee on Admissions from Secondary Schools, assisted by a Committee of Secondary School Men appointed at the request of the university by the administrative section of the High School Conference at its meeting in November, 1931.

An applicant for admission under the new requirements must be a graduate of an accredited secondary school and must present fifteen units of secondary school work as follows:

(a) Two majors of three units each and two minors of two units each, or three majors of three units each, from the fields of English, foreign language, mathematics, science and social studies. One of the majors must be English. There must be a total of ten units from the above fields, including preparation amounting to a major or minor sequence in at least three different fields.

(b) All subjects that are prerequisite to courses in the curriculum which the applicant desires to follow at the university.

(c) Five units from any of the high-school subjects accepted by an accredited school towards its diploma and which meet the standards for accrediting as defined by the University of Illinois. Fractional credits of the value of less than one half unit will not be accepted.

Major and minor sequences within the various groups are defined as follows:

A. *English.* (In all cases one major must be in English.) Only courses in history and appreciation of literature, composition, rhetoric and grammar will count toward a major.

B. *Foreign Language.* Three units in one language constitute a major. Two units in one language constitute a minor.

C. *Mathematics.* Only courses in algebra, plane geometry, solid and spherical geometry and trigonometry will be accepted toward a major or minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases where the content of the course is essentially the same as that ordinarily included in algebra and geometry.)

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D. *Science.* (Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology.) A major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany and zoology. Biology may be offered in place of botany and zoology. A minor must include at least one unit from the above subjects.

E. *Social Studies.* (Including history, civics, economics, commercial or economic geography, sociology.) A major must include at least two units in history, and a minor at least one unit.

The new requirements give admission also on the basis of twelve units earned in grades ten, eleven and twelve in schools organized with these three grades, as senior high schools. At least eight of these units, including two majors and one minor, or one major and two minors, or four minors, must be from the fields of English, foreign language, mathematics, science and social studies. Either a major or a minor must be in English.

Superior scholarship is recognized in the new requirements by authorizing the registrar to admit, without adhering to the usual subject requirements, a student who is a graduate of an accredited secondary school and whose scholarship rank is in the upper 10 per cent. of his graduating class. Such graduates need present only those specific high-school courses that are prerequisite to courses in the curricula which they desire to follow in the university.

Special provision is made also for graduates of unaccredited four-year secondary schools who rank in the upper 25 per cent. of their graduating class. Such applicants are admitted subject to passing at the university in advance of admission:

1. A test in English composition and rhetoric.
2. Such other examinations in high-school subjects as may be necessary to complete the entrance requirements, after credit on the certificating basis has been allowed for school work accomplished.

G. P. TUTTLE
Registrar
UNIVERSITY OF ILLINOIS

SOCIETIES AND MEETINGS

THE MINNEAPOLIS MEETING OF THE DEPARTMENT OF SUPERINTENDENCE

THE Department of Superintendence will hold its annual meeting at Minneapolis from February 25 to March 2. The convention theme will be "New Frontiers for American Life." The tentative program is as follows:

SATURDAY, FEBRUARY 25, 4:00 P. M.

Review of the exhibits by officers of the Department of Superintendence and the NEA.

SUNDAY, FEBRUARY 26, 4:00 P. M.

Vesper Service

Education for New Spiritual Frontiers

Presiding—Milton C. Potter, president of the Department of Superintendence.

Greetings to the convention visitors—Lotus D. Coffman, president, University of Minnesota.

Concert—St. Olaf's Choir.

MONDAY, FEBRUARY 27, 8:45 A. M.

The Challenge of the New Frontier

The Relation of the Present Economic Crisis to the Future of Democracy—Harley D. Lutz, professor of Industrial Finance, Princeton University.

The Imminence of Social Change, the Impact of Technology on a Price System of Production—Howard Scott, consultant engineer, directing Energy Survey of America, and director of Technocracy, New York City.

The Educational Implications of Modern Technology—Jesse H. Newlon, Lincoln School, Teachers College, Columbia University.

Education for a Changing World—Glenn Frank, president, University of Wisconsin, Madison.

MONDAY, FEBRUARY 27, 2:00 P. M.

An Educational Philosophy for Our Advancing Frontiers

General Session, A

Presiding—Edwin C. Broome, vice-president, Department of Superintendence.

The Need for a Modernized Teaching Philosophy—F. L. Redefer, executive secretary, Progressive Education Association, Washington, D. C.

Modern Theories of Education and Practical Considerations—William C. Bagley, Teachers College, Columbia University.

Our Educational Frontier—Boyd H. Bode, chairman of the Department of Principles of Education, Ohio State University.

Major Issues with Reference to Proposed Reforms—Frank N. Freeman, professor of education, University of Chicago.

The Training of Teachers for the New Order
General Session, B

Presiding—Joseph Rosier, president, National Education Association.

Redirection of Teacher Education toward New Frontiers—H. A. Brown, president, American Association of Teachers Colleges.

Our Public-School Crisis and Teacher Training—Paul Stetson, superintendent of schools, Indianapolis.

Necessary Differences in Teacher Specifications for the Old and New Frontiers—Fred M. Hunter, chancellor, University of Denver.

How the University School of Education Views the Teacher Problem—Paul C. Packer, president, National Society of College Teachers of Education.

MONDAY, FEBRUARY 27, 7:45 P. M.
Educational Frontiers from an International Viewpoint

Educational Frontiers of the New World—Harry Charlesworth, general secretary, British Columbia Teachers' Association, Vancouver, B. C.

New Educational Problems of the Antipodes—R. S. Wallace, vice-chancellor of Sydney University, Sydney, Australia.

Conflicting Governmental Philosophies—Lotus D. Coffman, president of University of Minnesota.

Representative Governments Face the New Frontier—David Lawrence, newspaper correspondent, and editor, *The United States Daily*, Washington, D. C.

TUESDAY, FEBRUARY 28, 8:45 A. M.
Educational Leadership for the New Frontiers

Presentation of the Yearbook on Educational Leadership—A. J. Stoddard, superintendent of schools, Providence, R. I., and chairman, 1933 Yearbook Commission.

Appraisal of the Yearbook—Herbert S. Weet, superintendent of schools, Rochester, N. Y.

Leadership from the Standpoint of the Layman—Louis Brownlow, director, Public Administration Clearing House, Chicago.

Professional Leadership in Education—William John Cooper, United States Commissioner of Education, Washington, D. C.

TUESDAY, FEBRUARY 28, 2:00 P. M.
Discussion Groups[1]

TUESDAY, FEBRUARY 28, 7:45 P. M.
The Administration of Education on the New Frontiers

Educational Economies and Frontier Needs—George D. Strayer, Teachers College, Columbia University.

Independence in School Government a Frontier Necessity—E. P. Cubberley, dean, School of Education, Leland Stanford University, and pioneer in educational administration.

Capitalizing the Frontier Crises—Edward C. Elliott, president, Purdue University.

WEDNESDAY, MARCH 1, 8:45 A. M.
The Improvement of Instructional Materials for the New Frontier

The Scientific Development and Evaluation of Textbook Materials—B. R. Buckingham, Harvard University.

Current Issues Relating to the Curriculum and Instructional Materials—A. L. Threlkeld, superintendent of schools, Denver.

Freedom from Red Tape and Statistics—A Frontier Blessing—Ernest C. Hartwell, superintendent of schools, Buffalo.

The Scientific Development and Evaluation of the Curriculum—Charles H. Judd, dean, School of Education, University of Chicago.

WEDNESDAY, MARCH 1, 2:00 P. M.
Discussion Groups[1]

WEDNESDAY, MARCH 1, 8:00 P. M.

Presiding—Florence Hale, vice-president, National Education Association.

Concert—Minneapolis Symphony Orchestra.

THURSDAY, MARCH 2, 8:45 A. M.
New Educational Frontiers beyond the Common Schools

Secondary Area—Thomas H. Briggs, Teachers College, Columbia University.

Beyond Secondary Education, What?—George Carrothers, University of Michigan.

University Area—Robert M. Hutchins, president, University of Chicago.

THURSDAY, MARCH 2, 1:45 P. M.
The New Frontiers of Extension Education

Dangers in the New Leisure Area—Dorothy Enderis, director, Extension Department, Milwaukee Public Schools.

Interprofessional Frontiers—Dr. Charles H. Mayo, Rochester, Minnesota.

[1] See SCHOOL AND SOCIETY, January 21, pp. 88–89.

New Problems in Adult Education—Ray Fife, state supervisor of Agricultural Education, Columbus, Ohio.

The Importance of Extension Education in Maintaining an Educated Citizenry—William J. Bogan, superintendent of schools, Chicago.

EDUCATIONAL RESEARCH AND STATISTICS

STATUS OF THE JUNIOR COLLEGE IN THE UNITED STATES, 1932–33

DISTINCT increases, both in number of junior colleges and in enrolments in them, over the corresponding figures collected a year ago are shown by reports received from this group of institutions of higher education in the United States up to November 20, 1932.

Detailed information regarding each institution may be found in the "Directory of the Junior College, 1933," compiled by Dr. Doak S. Campbell, of Peabody College, secretary of the American Association of Junior Colleges, and published in the issue of the *Junior College Journal* for January, 1933. A synopsis of some of the more significant facts and summaries will be of general interest.

The total number of junior colleges (including some institutions which are prevailingly high school, academy or seminary in character) is reported as 497—an increase of 24 or 5.1 per cent. over the number reported in 1932. The total enrolment for 1931–32 was 106,016, an increase of 6.6 per cent. over that of the previous year. This is the first time in the history of the junior college movement that the reported enrolment has passed the 100,000 mark.

The number and enrolment in junior colleges as shown by successive issues of the directory for the past six years has been as follows:

Year	Number	Enrolment
1928	408	50,529
1929	405	54,438
1930	429	67,627
1931	436	74,088
1932	473	99,476
1933	497	106,016

PUBLIC AND PRIVATE INSTITUTIONS

Of the entire group of 497 institutions, 192 or 39 per cent. are public junior colleges and 305 or 61 per cent. are private ones. The enrolment, however, is much greater and is growing more rapidly in the smaller number of public junior colleges. The public institutions have 66 per cent. of the enrolment, or 69,806, as compared with 36,210 found in the group of privately supported institutions.

DISTRIBUTION BY STATES

The number and enrolment in each type of junior college for each state are shown in Table 1.

California leads in total number of junior colleges, with 54; Texas is next with 44; followed by Iowa with 37, Missouri with 25, North Carolina with 23, and Illinois and Mississippi with 20 each. Nevada and Wyoming are the only states in which none are found.

Public junior colleges are found in 31 states. California, Iowa, Texas and Oklahoma leading in the order named. Private junior colleges are found in all but four states, the largest number being in Texas, North Carolina, California, Missouri and Kentucky.

California leads in total enrolment with 31,918, almost one third of the total enrolment in the country. Texas is second with 8,545, followed by Illinois with 7,967, and by Missouri with 5,273.

In the 164 public junior colleges for which data are available for both 1930–31 and 1931–32 the enrolment increased from 58,129 to 65,213—a gain of 12.2 per cent. Gains were made in 73 per cent. of this group of institutions. The greatest gains were registered in California, Illinois, Kansas, Mississippi, Minnesota and Oklahoma.

In the 208 private junior colleges, however, for which similar data are available, there was a slight loss of 1.5 per cent. from 24,603 to 24,235. Gains were made in 49 per cent. of the institutions. Under the severe conditions of the depression it is distinctly creditable to the private institutions that they have so nearly

held their own in enrolment. The depression also explains in part the increased attendance in public junior colleges, many students entering them for the first time or transferring after the freshman year at the more distant and more expensive university on account of the greater economy of the local institution. The public junior college, too, especially in those states where little or no tuition is charged, has helped to keep at home many young men who, unable to find employment, might otherwise be wandering over the country in box cars or hitch-hiking along the highways.

TABLE 1

NUMBER AND ENROLMENT IN PUBLIC AND PRIVATE JUNIOR COLLEGES IN THE UNITED STATES

	Total		Public		Private	
	No.	Enrolment	No.	Enrolment	No.	Enrolment
Alabama	5	382	1	100	4	282
Arizona	2	681	1	576	1	105
Arkansas	13	22,653	6	2,022	7	631
California	54	31,918	35	30,293	19	1,625
Colorado	5	719	2	190	3	529
Connecticut	5	351	0	—	5	351
Delaware	3	926	1	51	2	875
Dist. Columbia	9	497	0	—	9	497
Florida	5	571	1	160	4	411
Georgia	14	1,574	7	877	7	697
Idaho	5	1,117	3	772	2	345
Illinois	20	7,967	6	6,075	14	1,892
Indiana	4	341	0	—	4	341
Iowa	37	2,737	27	1,911	10	826
Kansas	16	3,503	10	3,207	6	296
Kentucky	17	2,531	0	—	17	2,531
Louisiana	9	597	2	414	7	183
Maine	3	147	0	—	3	147
Maryland	5	556	1	13	4	543
Massachusetts	10	752	1	44	9	708
Michigan	10	3,095	8	2,982	2	113
Minnesota	10	2,439	7	2,145	3	294
Mississippi	20	2,885	11	2,109	9	776
Missouri	25	5,273	7	2,486	18	2,787
Montana	2	240	1	240	1	—
Nebraska	8	785	2	156	6	629
Nevada	0	—	0	—	0	—
N. Hampshire	1	139	0	—	1	139
New Jersey	2	100	0	—	2	100
New Mexico	1	218	1	218	0	—
New York	10	1,136	0	—	10	1,136
N. Carolina	23	2,831	2	278	21	2,553
N. Dakota	2	407	2	407	0	—
Ohio	13	3,935	0	—	3	3,935
Oklahoma	17	2,969	14	2,859	3	110
Oregon	1	42	0	—	1	42
Pennsylvania	7	830	0	—	7	830
Rhode Island	1	25	0	—	1	25
S. Carolina	3	283	0	—	3	283
S. Dakota	6	306	0	—	6	306
Tennessee	14	2,553	2	556	12	1,997
Texas	44	8,545	20	5,475	24	3,070
Utah	5	1,406	2	438	3	968
Vermont	1	69	0	—	1	69
Virginia	13	1,569	1	—	12	1,569
Washington	7	827	4	565	3	262
W. Virginia	4	575	1	301	3	274
Wisconsin	2	128	0	—	2	128
Wyoming	0	—	0	—	0	—
Philippine Islands	4	1,886	3	1,886	1	—
Total	497	106,016	192	69,806	305	36,210

The junior college is prevailingly a coeducational institution, 345 being reported of this type. Two institutions for men and two for women are reported in the public group, all the rest being coeducational. In the private group, 43 are for men only and 105 are for women only.

Sixty per cent. of the private group are reported as under denominational control, the Methodists leading with 47, followed by the Baptists, 35; Catholics, 24; Lutherans, 21; Presbyterians, 16; and miscellaneous, 38.

A considerable variety of types of administrative organization are found, which may be summarized as follows:

Type	Number	Per cent.
6-year	32	6.9
5-year	2	0.4
4-year	29	6.3
3-year	2	0.4
2-year	394	85.1
1-year	4	0.9

The two-year junior college is the prevailing type, but a variety of other types are represented.

The size of the 470 colleges for which enrolments are reported is summarized in the following tabulation:

0– 99	198	700– 799	4
100–199	135	800– 899	4
200–299	62	900– 999	3
300–399	23	1,000–1,999	8
400–499	14	2,000–2,999	3
500–599	7	3,000–3,999	1
600–699	6	4,000–4,999	2

While the junior college is still a comparatively small institution, far too small for real efficiency in many cases, yet it is growing with considerable rapidity. It is significant that there are 75 which have enrolments exceeding 300, and 14 in which the enrolment is in excess of 1,000.

Following are the institutions reporting enrolments of regular and special students combined in excess of 1,000.

San Bernardino Valley Junior College, Calif.	4,363
Crane Junior College, Chicago, Illinois	4,287
Los Angeles Junior College, California	3,959
Sacramento Junior College, California	2,490
Pasadena Junior College, California	2,109
Chaffey Junior College, Ontario, California	2,082
Philippine Normal School, Manila, P. I.	1,679
Long Beach Junior College, California	1,500
Kansas City Junior College, Missouri	1,462
Modesto Junior College, California	1,262
Junior College of Univ. of Toledo, Ohio	1,184
San Mateo Junior College, California	1,171
Ventura Junior College, California	1,160
Grand Rapids Junior College, Michigan	1,069

All these are public institutions. In several of the California institutions there is a large enrolment of adults in special courses. If full-time regular students only are included, San Bernardino, Chaffey, Modesto and Ventura would not be included in the above list. The largest junior college under private auspices is Stephens, at Columbia, Missouri, with 622 students.

The increase in average enrolment in a year in the public institutions has been noteworthy, while the private institutions have lost slightly. The change in average enrolment may be summarized as follows:

	1931–32	1930–31	Percentage increase
Total	225	208	8.2
Public	375	337	11.3
Private	127	128	– 0.8

Enrolment by Classes

Most of the junior colleges reported their enrolments segregated by classes. As far as this information was furnished it indicated an enrolment of 53,360 freshmen, 26,442 sophomores and 13,636 special students.

Number of Instructors

In the 406 institutions which reported on their faculty, there was a total of 3,774 full-time instructors and 2,617 on a part-time basis, or an average of 16 per institution. Most of the part-time instructors are also teaching in the high schools, which are maintained in close connection with many of the smaller junior colleges. If it be assumed that two part-time instructors are equivalent on the average to one full-time instructor, the equivalent of 5,083 full-time instructors are found in these 406 institutions. If the same ratio holds in the junior colleges which did not report on this feature, it may be estimated that there are the equivalent of over 6,000 full-time instructors in the junior colleges of the United States. California is credited with 1,328 instructors, Illinois with 447, Texas with 389, and Missouri with 305.

Changes in Administrators

A comparison of the 1932 and 1933 directories reveals a change in the administrative head on the part of 55 junior colleges, or 12 per cent. of the entire group. The same proportion is found in both the public and the private institutions. This is the same proportion of change in administrative head as was found in the four-year colleges and universities of the country between 1930 and 1931. Thus the junior colleges seem to have the same stability from the standpoint of administration as the four-year institutions. In each the average term of service of the president appears to be about 8 years.

WALTER CROSBY EELLS
STANFORD UNIVERSITY

NEW BOOKS IN EDUCATION

GLENN, OLIVER E. *The Sources of Error.* Pp. 127. Stratford. $1.50.

KALEN, HORACE M. *Individualism:* An American Way of Life. Pp. x + 241. Liveright. $2.00.

PHELPS, WINTHROP M., and ROBERT J. H. KIPHUTH. *The Diagnosis and Treatment of Postural Defects.* Pp. ix + 180. 106 figures. Thomas. $4.00.

RUCH, G. M., F. B. KNIGHT, and J. W. STUDEBAKER. *Standard Service Arithmetic Work Book.* Teacher's Edition. Grade 6. Pp. xvii + 104. Scott, Foresman. $0.48.